

Math League News

■ **Use the Internet to View Scores or Send Comments** to comments@mathleague.com.

■ **Contest Registration and Books of Past Contests** Register for next year by mail or on the internet right now! Renew now so you don't forget later! *You may ask us to bill you this fall.* We sponsor an *Algebra Course I* Contest and contests for grades 4, 5, 6, 7, and 8. Use the registration form enclosed with Contest #6 to register for contests or to **Order Books of Past Contests**.

■ **2025-2026 Contest Dates** We schedule the six contests to be held four weeks apart (mostly) and to end in March. Next year's contest (and alternate) dates, all Tuesdays, are October 14 (Oct. 21), November 11 (Nov. 18), December 9 (Dec. 16), January 13 (Jan. 20), February 10 (Feb. 17), and March 10 (Mar. 17). Have a testing or other conflict? Now is a good time to put an alternate date on your calendar!

■ **Test Security Procedures** Students are expected to sign the honor pledge posted on our website, affirming that they "will neither give nor receive help with any of the Math League Contest questions either before or during any of the Math League Contests." Of course, in the end contest security is really a cooperative effort. Schools should do whatever they can to prevent premature disclosure of questions and/or answers. For our part, we are always monitoring the results for any suspicious outcomes, which we then investigate thoroughly.

■ **End-of-Year Awards and Certificates** Symbols identify winners. We ship plaques to the advisors. Errors? Email dan@mathleague.com. Identify the award, contest level, your name, and the school's name and address. The envelope for Contest #5 contained Certificates of Merit for the highest scoring students overall and in each grade for the year. Do you need extra certificates for ties? Email dan@mathleague.com and you will be provided with a link to a printable color pdf of our Certificate of Merit.

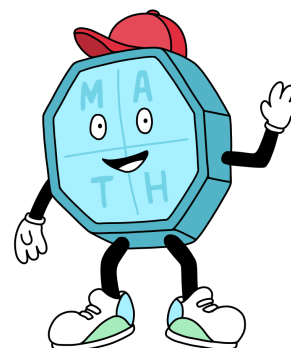
■ **General Comments About the Contest (and the Year)** Robert Morewood said, "Thank for another year of stimulating questions!"

■ **Question 6-1: Comments and Alternate Solution** Dean Ballard said, "Interesting to see that 5 out of our 13 students missed problem #1, and for 2 of those 5, it was the only problem they missed! The temptation to see zero as a solution was just too strong." Robert Morewood said, "#1 (and #3) exposed a weakness with negatives. Too many students did not consider negatives for x , and some thought ALL powers of zero would be zero." Denes Jakob said, "One of my students provided the following alternate solution to 6-1: $x^{2025} = x^{-2025}$ multiply both sides by x^{2025} , $x^{4050} = 1$. Now take the 4050th root of both sides (even index so put +/- in front of root) so, $x = -1, 1$."

■ **Question 6-4: Comment** Robert Morewood said, "[One of my students] pointed out a flaw in the official solution: We should seek the smallest hypotenuse rather than the smallest perimeter. Challenge to students: Find two integer right triangles [that satisfy the conditions of Question 6-4] where the one with the smaller perimeter has the larger sum $a + b + c$." Good catch, Robert Morewood's student! We have corrected that solution for our Volume 9 book of high school math contests that will be published in 2 years.

■ **Question 6-5: Comment** Robert Morewood said, "There are a LOT of ways to get a pile with the correct sum!"

■ **Question 6-6: Alternate Solution** Robert Morewood said, "One student used cosine law. Another used only the Pythagorean Theorem."



Statistics / Contest #6

Prob #, % Correct (all reported scores)

6-1	54%	6-4	43%
6-2	83%	6-5	49%
6-3	53%	6-6	13%

SEE YOU NEXT YEAR!!